



# Department of Defense

## DIRECTIVE

August 16, 1994  
NUMBER 3150.3

ATSD(AE)

SUBJECT: Nuclear Force Security and Survivability (S2)

References: (a) DoD Directive 3150.3, "Survivability and Security (S2) of Nonstrategic Nuclear Forces (NSNF)," January 23, 1991 (hereby canceled)  
(b) DoD Directive 3150.2, "Safety Studies and Reviews of Nuclear Weapon Systems," February 8, 1984  
(c) DoD Directive 3224.3, "Physical Security Equipment **(PSE)**: Assignment of Responsibility for Research, Development, Testing, Evaluation, Production, Procurement, Deployment, and Support," February 17, 1989  
(d) DoD Directive 5210.41, "Security Policy for Protecting Nuclear Weapons," September 23, 1988  
(e) through (i), see enclosure 1

### A. REISSUANCE AND PURPOSE

This Directive:

1. Reissues reference (a) to:
  - a. Add strategic nuclear weapons and forces to the existing DoD Non-strategic Nuclear Forces **(NSNF)** S2 Program.
  - b. Update **pol**icy and responsibilities for nuclear force S2.
2. Describes the DoD program to develop concepts, procedures, equipment, facilities, and training programs that ensure the S2 of nuclear weapon systems (hereafter referred to in this Directive as "nuclear force S2") throughout the threat spectrum in all plausible scenarios and throughout the weapon system's life cycle.
3. Requires that applicable Military Services maintain nuclear force S2 programs, in accordance with the policies in section D., below, and that the Defense Nuclear Agency (DNA) maintain coordinated research and development **(R&D)** support programs for nuclear force S2 to complement the programs of the Military Services.

### B. APPLICABILITY AND SCOPE

This Directive applies to:

1. The Office of the Secretary of Defense **(OSD)**, the Military Departments, the Chairman of the Joint Chiefs of Staff, the Unified Combatant Commands with a nuclear mission, and the Defense Agencies. The term "Military Services," as used herein, refers to those Services (the Army, the Navy, the Air Force, and the Marine Corps) that have a nuclear mission, nuclear forces,

and/or responsibilities for nuclear weapons.

2. Nuclear weapon systems to include **all** mission-essential assets (the nuclear weapon, delivery system and/or platform, support systems and/or **equipment**, facilities, and personnel) that are the operational responsibility of the Department of Defense.

3. Nuclear weapons that are in the custody of the Department of Defense and could be employed in support of allied forces when authorized by competent authority.

4. Dual-capable systems (i.e., systems also having a conventional **weapons** delivery mission) that are the operational responsibility of the **Department** of Defense. The conventional role is often the primary mission of **dual-capable** systems. The S2 goals in this Directive must not unduly hamper the **multiple** missions of general purpose forces.

5. The entire threat spectrum (electronic; initial nuclear weapon **effects**; nuclear, **biological**, and chemical contamination; advanced technology weapons such as high power microwaves; and terrorism or sabotage).

6. All force postures (nondispersed and nondeployed, dispersing and deploying, and dispersed and deployed).

7. Doctrine, organization, procedures, training, and equipment.

#### C. DEFINITIONS

Terms used in this Directive are defined in enclosure 2.

#### D. POLICY

It is DoD policy that:

1. The Nuclear Force S2 Programs shall be directed towards the following goals:

a. Maintaining S2 of nuclear weapon systems sufficient to ensure availability during crisis.

b. Ensuring the capability to conduct rapid upload, dispersal, re-deployment, or movement to alert status of nuclear assets during transition to war with high levels of S2.

c. Denying or degrading an adversary's capability to acquire, **neutralize, or** destroy nuclear assets while on alert, during dispersal, or while being redeployed. Once dispersed or redeployed, continue denying or degrading the adversary's capability in U.S. or allied forces' areas of operation.

d. Improving the S2 of nuclear supporting command, control, communications (**C3**), and intelligence (**C3I**), and logistical assets.

e. Improving the capability to assess the full range of threats to nuclear forces.

f. Ensuring that S2 are among the primary factors in the planning, design, acquisition, deployment, and operation of nuclear weapon systems.

g. Taking maximum advantage of S2 enhancements in a manner that does not create undesired perceptions by an adversary.

2. This Directive shall be the focus of the DoD Nuclear Force S2 Program and serve to link the various related and supporting programs and Directives in and outside the Department of Defense to provide general oversight and synergism while reducing or eliminating unnecessary redundancies. The DoD Nuclear Force S2 Program complements, but does not duplicate, other existing DoD Directives that address specific aspects of nuclear safety (DoD Directive 3150.2), physical security equipment (DoD Directive 3224.3), nuclear weapon security policy (DoD Directive 5210.41 and DoD C-5210.41-M), transportation of nuclear weapons (DoD Directive 4540.5), S2 of U.S. nuclear weapon command and control (DoD Directive S-5210.81), and Defense acquisition policies and procedures (DoD Directive 5000.1 and DoD Instruction 5000.2) (references (b) through (i)).

3. Operational commanders shall establish goals and objectives for the S2 of operational nuclear forces, in accordance with this Directive.

4. The requirements for R&D and the implementation of corrective measures for nuclear force S2 shall be coordinated among the OSD, the Chairman of the Joint Chiefs of Staff, the Military Departments, the operational commanders, the DNA, and the other applicable Defense Agencies.

5. Information on major and **nonmajor** acquisition programs, or any other pertinent information that may assist the acquisition process, shall be coordinated with the Defense Acquisition Board (DAB) committees listed in reference (i).

#### E. RESPONSIBILITIES

1. The Under Secretary of Defense for Acquisition and Technology shall :

a. ~~Ensure~~ that the Assistant to the Secretary of Defense (Atomic Energy) (**ATSD(AE)**) oversee and coordinate the DoD Nuclear Force S2 Program and shall :

(1) Constitute and chair a Nuclear S2 Steering Group (**NS2SG**), in accordance with the guidance in enclosure 3.

(2) Appoint a senior officer to chair a Nuclear S2 Working Group (**NS2WG**) answerable to the NS2SG, in accordance with the guidance in enclosure 3.

(3) Maintain oversight of DNA nuclear force S2 R&D programs.

(4) Periodically advise the **USD(A&T)** on the status of the nuclear S2 programs of the Military Services and the DNA, and on the activities of the **NS2SG** and/or the **NS2WG**.

(5) Provide advice and recommendations on nuclear force S2 to the DAB committee for support of major acquisition decisions. Provide similar advice and recommendations to the Service Acquisition Executives in support of **nonmajor** acquisition decisions. Provide information to, and coordinate Nuclear **Force S2 Program** activities with, the Nuclear Weapons Council.

(6) Serve as the **DoD** focal **point** for coordination and exchange of information with the Department of Energy (DoE) on nuclear S2 issues.

(7) Coordinate recommended changes or revisions to this Directive with the OSD, the Military Departments, the **Chairman** of the Joint **Chiefs** of Staff, and the applicable Defense Agencies.

b. Provide representation on the **NS2SG** and the **NS2WG**.

c. Ensure that nuclear force security requirements are addressed by the Physical Security Equipment Action Group.

d. Provide guidance and direction on any overlap in nuclear S2 initiatives between nonstrategic and strategic systems.

e. Support the procurement of systems and facilities required for nuclear force S2.

f. Ensure that S2 issues are identified and resolved by the DAB **Strategic** Systems Committee, and that pertinent recommendations are developed on the operating and policy aspects of the DoD Acquisition System for nuclear force S2.

g. Ensure that S2 are considered by the DAB Conventional Systems Committee in the acquisition of dual-capable systems.

h. Ensure that the Director of the DNA shall:

(1) Appoint a senior program manager to act as the principal point of contact (**POC**) for nuclear force S2 matters with OSD, the Chairman of the Joint Chiefs of Staff, the Military Services, and the operational commands.

(2) Conduct and coordinate nuclear weapon security and nuclear force survivability research programs under the cognizance of the **ATSD(AE)**. Those programs shall be coordinated with the associated **R&D** programs on nuclear systems directed by the **USD(A&T)**, and those on security directed by the **USD(A&T)** and the Assistant Secretary of Defense for C31 (**ASD(C3I)**). The DNA program shall be structured to consider the nuclear force S2 research needs of the Military Services.

(3) Provide technical support on nuclear force S2 matters to the ATSD(AE), the NS2SG, and the **NS2WG**.

(4) Provide two copies of program-implementing documents to the **ATSD(AE)** within 30 days of initial publication or change.

2. The Under **Secretary** of Defense for **Policy** shall:

a. **Designate** a senior-level representation to the NS2SG, and provide a **representative** to the **NS2WG**.

b. Serve as point of coordination for policy implications on arms control, deployment considerations, and allied perceptions of nuclear force S2 issues and initiatives.

c. Identify new and evolving policy and strategy trends that may impact **nuclear** force S2.

d. Provide policy guidance, as required, on the use of Special Operations Forces in nuclear force S2.

3. The Assistant **Secretary** of Defense for Command, Control, Communications, and Intelligence shall:

a. **Designate** a senior-level representative to the **NS2SG**, and provide **representatives** to the **NS2WG** for both physical security policy and for C3.

b. Serve as the focal point for developing DoD physical security policy for nuclear weapons and forces. Assess the impact and applicability of the requirements of DoD Directives 5210.41 and S-5210.81, and DoD C-5210.41-M (references (d), (g), and (e)), and other security policies on nuclear force S2 issues and initiatives.

c. Serve as the focal point for coordinating and issuing the postulated **threat** to the security of nuclear weapons, forces, and systems.

d. Serve as the focal point for interfacing with the C3 community for consideration of implications of or impact on nuclear C3 assets and programs from nuclear force S2 issues and initiatives.

e. Ensure that nuclear force S2 are considered in evaluating, planning, developing, and maintaining the DoD portion of the Nuclear Command and Control System (**NCCS**).

f. As the Chair of the DA8 C31 Systems Committee, ensure that S2 are considered in the acquisition of nuclear C31 systems.

g. Ensure that the Director, Defense Intelligence Agency (**DIA**), shall:

(1) Ensure that collection priorities and requirements reflect

DoD Nuclear Force S2 Program requirements.

(2) Provide threat support, as required, to the DoD Nuclear Force S2 Program.

(3) Work with the OSD and the Military Departments to support, produce, review, validate, and/or publish threat environment projections and system threat assessments for nuclear systems.

**h. Ensure that the Director, Defense Information Systems Agency (DISA), shall:**

(1) Serve as the focal point for considering information flow connectivity **impacts** on nuclear C3 assets that evolve from nuclear force S2 issues and **initiatives**.

(2) Monitor DoD Nuclear Force S2 Program activities for **applicability** to, or impact on, current and future **C3** programs that support nuclear operations.

(3) Provide technical support to the **ASD(C3I)**, the **NS2SG**, and the **NS2WG** on nuclear-related information systems used to provide assured connectivity to the nuclear weapon system throughout the entire threat spectrum.

(4) Ensure that the nuclear force S2 information-related programs of the DoD Departments and Agencies do not necessarily duplicate or conflict with the missions and directives of other Agencies.

(5) Liaison with **non-DoD** Agencies to ensure that the information-related requirements do not conflict with, and mutually and adequately support, the missions of both Agencies.

4. The Comptroller of the Department of Defense shall:

**a. Designate** a senior-level representative to the NS2SG, and provide a **representative** to the **NS2WG**.

**b. Assess** the budgetary impacts of nuclear force S2 issues and initiatives.

**c. Ensure** that the Director, Program Analysis and Evaluation, assesses the programmatic impacts of nuclear force S2 issues and initiatives.

5. The Secretaries of the Navy and the Air Force shall:

**a. Maintain** a nuclear security program and a nuclear forces' survivability program with specific goals, objectives, and priorities responsive to DoD Nuclear Force S2 Program goals. At the option of the Secretaries of those Military Departments, nuclear security and nuclear force survivability programs may be combined, separate programs, or embodied in existing programs.

b. Evaluate the S2 of nuclear weapons, associated delivery systems, and supporting forces and facilities under Military Service cognizance to ensure maximum S2, identify shortcomings, and develop and implement corrective measures.

c. Ensure that the R&D projects included in the DNA S2 R&D programs are evaluated for incorporation by the Military Departments during the Planning, Programming, and Budgeting System cycle.

d. Inform the ATSD(AE) how S2 are being considered for new or modernized nuclear systems before Milestone I, "Concept Demonstration Approval," described in DoD Directive 5000.1 and DoD Instruction 5000.2 (references (h) and (i)). Before Milestone II, "Development Approval," provide the security concept of operations to the **ASD(C3I)**, as required by DoD Directive 5210.41 (reference (d) ), and a survivability concept of operations to the ATSD(AE).

e. Ensure that doctrine and training programs support nuclear **operational S2**, and that nuclear force S2 are considered in the development and fielding of new materiel.

f. Appoint a Military Service single POC for nuclear force S2 who shall designate a senior-level representative to the NS2SG and a representative to the NS2WG.

g. Provide two copies of implementing documents to the **ATSD(AE)** within 30 days of initial publication **or** change.

6. The **Secretary of the Army** may designate a Military Service **senior-level representative** to the **NS2SG**, and provide a representative to the NS2WG to remain informed of nuclear force S2 activities and participate in the review of S2 programs and issues.

7. The Chairman of the Joint Chiefs of Staff shall:

a. Appoint a principal POC to coordinate the DoD Nuclear Force S2 Program **for** the operation of forces.

b. Designate a senior-level representative to the NS2SG, and provide a representative to the NS2WG.

c. Ensure that the policy of the Secretary of Defense on the **NCCS** is implemented.

d. Provide **operational guidance** and direction on nuclear force S2 to the operational commands; **provide** coordination and oversight of nuclear force S2 initiatives and issues of the Unified Commands; and integrate multi-Service nuclear force S2 requirements.

e. Ensure that the interests of the Unified Combatant Commands are addressed during nuclear force S2 concept and policy development, and during design, acquisition, and fielding of nuclear force S2 improvements.

f. Identify specific nuclear C2 systems, equipment, and facilities that are subject to nuclear survivability, reliability, and endurability standards. Develop means of monitoring the development and readiness of those systems to ensure compliance with the standards established.

**8. The Commanders of the Unified Combatant Commands with a Nuclear Mission shall:**

a. Consider nuclear force S2 in operational planning and training, and in the day-to-day conduct of activities for all force postures in the stockpile-to-target sequence.

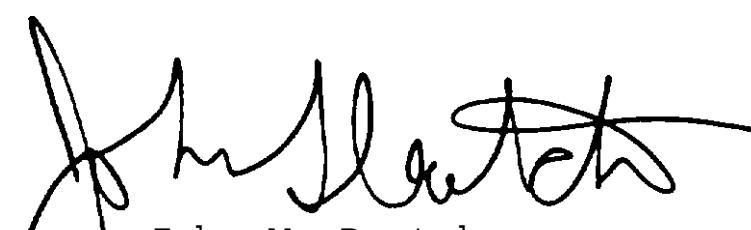
b. Review and be cognizant of the nuclear force S2 programs and initiatives of the Military Services and the DNA, and recommend requirements for R&D and nuclear force S2 enhancements through channels.

c. Ensure that the direction of the Secretary of Defense on the NCCS is implemented.

d. Develop and implement a nuclear force S2 program to support the assigned stockpile.

**F. EFFECTIVE DATE AND IMPLEMENTATION**

This Directive is effective immediately. Forward one copy of implementing documents to the Under Secretary of Defense for Acquisition and Technology within 120 days.



John M. Deutch  
**Deputy** Secretary of Defense

Enclosures - 3

1. References
2. Definitions
3. Nuclear Force S2 Steering and Working Groups



REFERENCES, continued

- (e) DoD C-521 0.41-M, "Nuclear Weapon Security Manual (U)," September 1987, authorized by DoD Directive 5210.41, September 23, 1988
- (f) DoD Directive 4540.5, "Movement of Nuclear Weapons by Noncombat Delivery Vehicles," June 14, 1978
- (g) DoD Directive S-521 0.81, "United States Nuclear Weapon Command and Control (U)," June 18, 1991
- (h) DoD Directive 5000.1, "Defense Acquisition," February 23, 1991
- (i) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

## DEFINITIONS

1. Nonstrategic Nuclear Forces (NSNF). Those nuclear-capable forces, located in an area of military operations, with a capability to employ nuclear weapons by land, sea, or air forces against opposing forces, supporting installations, or facilities. Such forces may be employed, when authorized by competent authority, to support operations that contribute to the accomplishment of the military commander's mission in the theater of operations. That term shall be used instead of the term "Theater Nuclear Forces." The North Atlantic Treaty Organization term for NSNF is "**substrategic** forces."
2. Nuclear Force. A collective term referring to nuclear delivery units, nuclear weapon systems, and applicable control and support systems.
3. Nuclear Weapon Systems. A nuclear weapon and a means of delivering it to the target with associated support equipment, noncombat vehicles, facilities, procedures, and personnel.
4. Security (Nuclear Weapons and Forces). The total spectrum of procedures, facilities, equipment, and personnel employed to provide a secure environment for nuclear weapons and forces.
5. Strategic Nuclear Weapons and Forces. Those nuclear weapons, delivery systems, and forces (intercontinental ballistic missiles, sea-launched ballistic missiles, and bomber aircraft) that possess intercontinental range (greater than 5,500 kilometers) and are capable of striking one or more enemy targets to satisfy U.S. nuclear employment objectives.
6. Survivability (Nuclear Force). The capability of nuclear forces and their nuclear control and support systems and facilities in wartime to avoid, repel, or withstand attack or other hostile action, to the extent that essential functions (ability to perform assigned nuclear mission) can continue or be resumed after onset of hostile action.

NUCLEAR FORCE S2 STEERING AND WORKING GROUPS

A. **NS2SG**

1. A **NS2SG** shall operate under the Chair of the ATSD(AE) to accomplish the following:

a. Review DoD nuclear force S2 goals, and evaluate progress made in achieving those goals.

b. Consider the feasibility of proposed concepts, and review ongoing nuclear force S2 projects.

c. Ensure that nuclear force S2 receives proper emphasis during the **development** of the "Defense Planning Guidance."

d. Monitor the DNA nuclear security and nuclear force survivability R&D programs.

e. ~~Ensure~~ Ensure coordination and prevent duplication among the DNA and the **Military Service** nuclear force S2 programs and with DISA **C3** activities and programs, which are related to, but outside the scope of this Directive.

f. Ease the exchange of information among participants.

g. Refer recommendations of the **NS2SG** for action by the **ATSD(AE)** to the applicable DAB committee, the OSD, the Military Service, the Chairman of the Joint Chiefs of Staff, the Unified Commanders, or other applicable Defense Agency for consideration and resolution.

2. The following shall appoint a member to the **NS2SG**:

a. The **USD(A&T)** (may be represented by the **ATSD(AE)**, Chair).

b. The Under Secretary of Defense for Policy.

c. The **ASD(C3I)**.

d. The Comptroller of the Department of Defense.

e. The Chairman of the Joint Chiefs of Staff.

f. The Secretary of the Army (optional).

g. The Secretary of the Navy.

h. The Secretary of the Air Force.

i. The Commanders of the Unified Combatant Commands with a nuclear mission.

3. The following DoD Components, Agencies, and other Government Departments may be invited by the NS2SG Chair to send representation to NS2SG meetings or to assist or to support the NS2SG, as required:

- a. The DNA.
- b. The **DISA**.
- c. The DIA.
- d. The **NWC**.
- e. The **NCCS** Support Staff.
- f. The DoE.
- g. The Department of State.
- h. The Federal Bureau of Investigation.
- i. The National Security Agency.
- j. The Central Intelligence Agency.

4. The NS2SG shall meet at the **call** of the Chair.

B. NS2WG

1. A **NS2WG** shall be constituted by the **ATSD(AE)** to perform activities, as **directed** by the NS2SG.

2. Those organizations and/or offices represented on the NS2SG shall also be represented on the **NS2WG**, along with other organizations and/or offices.

3. The NS2WG shall meet at the call of the Chair.